



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,612	10/27/2003	Hong-Ju Park	678-1099 (P10519)	5721
28249	7590	12/16/2005	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			IQBAL, KHAWAR	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,612

Applicant(s)

PARK, HONG-JU

Examiner

Khawar Iqbal

Art Unit

2688

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being unpatentable by La Medica, Jr. et al (6625451).
3. Regarding **claim 1** Medica, Jr. et al teaches a cellular mobile communication system comprising a plurality of sub-mobile communication systems for configuring a plurality of sub-PLMNs (Public Land Mobile Networks) that are classified by an MSC (Mobile Switching Center), each sub-mobile communication system including (figs. 1-6):
an MSC for storing system ID information of peripheral sub-PLMNs whose roaming services can be provided according to a geometric location and a convention (col. 11, lines 34-65), identifying a current location of an MS, configuring a valid roaming list including system IDs of peripheral sub-PLMNs whose roaming services can be provided according to the current location of the MS, and transmitting the valid roaming list (col. 17, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65); and
a plurality of MSs for storing a roaming list including system IDs of sub-PLMNs whose roaming services can be provided according to the convention, comparing the

Art Unit: 2688

received valid roaming list and the stored roaming list (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65), scanning a peripheral sub-PLMN after a predetermined period of time if a sub-PLMN having a higher-order priority than a sub-PLMN currently providing a radio service exists in at least one sub-PLMN contained in the valid roaming list, and performing a roaming procedure for the sub-PLMN of the higher-order priority (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36).

Regarding **claim 2** Medica, Jr. et al teaches wherein the MSC transmits the valid roaming list at a location registration of the MS (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65).

Regarding **claim 3** Medica, Jr. et al teaches wherein the MSC transmits the valid roaming list to the mobile station through a BCCH (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65).

Regarding **claim 4** Medica, Jr. et al teaches a cellular mobile communication system comprising a plurality of sub-mobile communication systems for configuring a plurality of sub-PLMNs (Public Land Mobile Networks) that are classified by an MSC (Mobile Switching Center), each sub-mobile communication system including (figs. 1-6):

a plurality of BTSs (Base Transceiver Stations) for storing system ID information of peripheral sub-PLMNs whose roaming services can be provided according to a geometric location and a convention, and transmitting a valid roaming list at the time of system information transmission (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-

Art Unit: 2688

65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36); and

a plurality of MSs (Mobile Stations) for storing a roaming list including system IDs of sub-PLMNs whose roaming services can be provided according to the convention, comparing the received valid roaming list and the stored roaming list, scanning a peripheral sub-PLMN after a predetermined period of time if a sub-PLMN having a higher-order priority than a sub-PLMN currently providing a radio service exists in at least one sub-PLMN contained in the valid roaming list, and performing a roaming procedure for the sub-PLMN of the higher-order priority (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36).

Regarding **claim 5** Medica, Jr. et al teaches a method for providing a roaming service in a cellular mobile communication system including a plurality of sub-mobile communication systems for configuring a plurality of sub-PLMNs (Public Land Mobile Networks) that are classified by an MSC (Mobile Switching Center), comprising the steps of (figs. 1-6):

a) storing system ID information of peripheral sub-PLMNs whose roaming services can be provided according to a geometric location and a convention, in an MSC (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36);

b) identifying a current location of an MS (Mobile Station), configuring a valid roaming list including system IDs of peripheral sub-PLMNs whose roaming services can

Art Unit: 2688

be provided according to a current location of the MS, and transmitting the valid roaming list, in the MSC (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36);

c) comparing the received valid roaming list with a roaming list including system IDs of sub-PLMNs whose roaming services can be provided and roaming priorities, in the MS (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36); and

d) scanning a peripheral sub-PLMN after a predetermined period of time if a sub-PLMN having higher-order priority than a sub-PLMN currently providing a radio service exists in at least one sub-PLMN contained in the valid roaming list as a result of the comparison, and perform a roaming procedure for the sub-PLMN of the higher-order priority, in the MS (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36).

Regarding **claim 6** Medica, Jr. et al teaches wherein the MSC transmits the valid roaming list when the MS requests a location registration update (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36).

Regarding **claim 7** Medica, Jr. et al teaches a method for providing a roaming service in a cellular mobile communication system including a plurality of sub-mobile communication systems for configuring a plurality of sub-PLMNs (Public Land Mobile

Art Unit: 2688

Networks) that are classified by an MSC (Mobile Switching Center), comprising the steps of (figs. 1-6):

a) storing system ID information of peripheral sub-PLMNs whose roaming services can be provided according to a geometric location and a convention, in an MSC (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36);

b) transmitting a location registration update request to the MSC, from an MS (Mobile Station) (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36);

c) if the MSC receives the location registration update request, configuring a valid roaming list including system IDs of peripheral sub-PLMNs whose roaming services can be provided according to a current location of the MS, and transmitting the valid roaming list (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36);

d) comparing the received valid roaming list with a roaming list made up of system IDs of sub-PLMNs whose roaming services can be provided and roaming priorities, in the MS (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36); and

e) scanning a peripheral sub-PLMN after a predetermined period of time if a sub-PLMN having a higher-order priority than a sub-PLMN currently providing a radio service exists in at least one sub-PLMN contained in the valid roaming list as a result of

Art Unit: 2688

the comparison, and perform a roaming procedure for the sub-PLMN of the higher-order priority, in the MS (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36).

Regarding **claim 8** Medica, Jr. et al teaches a method for providing a roaming service in a cellular mobile communication system including a plurality of sub-mobile communication systems for configuring a plurality of sub-PLMNs (Public Land Mobile Networks) that are classified by an MSC (Mobile Switching Center), comprising the steps of (figs. 1-6):

a) storing system ID information of peripheral sub-PLMNs whose roaming services can be provided according to a geometric location and a convention, and transmitting a valid roaming list at a system information transmission, in an MSC (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36);

b) comparing the received valid roaming list with a roaming list including system IDs of sub-PLMNs whose roaming services can be provided and roaming priorities according to the convention, in an MS (Mobile Station) (col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36); and

c) scanning a peripheral sub-PLMN after a predetermined period of time if a sub-PLMN having a higher-order priority than a sub-PLMN currently providing a radio service exists in at least one sub-PLMN contained in the valid roaming list, and performing a roaming procedure for the sub-PLMN of the higher-order priority, in the MS

Art Unit: 2688

(col. 7, lines 3-65, col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36).

Response to Arguments

4. Applicant's arguments filed 11-28-05 have been fully considered but they are not persuasive. Examiner has thoroughly reviewed applicant's arguments but firmly believes the cited reference to reasonably and properly meets the claimed limitations. Applicants argument was that " Each of independent Claims 1, 4, 5, 7 and 8 recites a "valid roaming list" and a "stored roaming list" the "valid roaming list" is received from one of the Base Transceiver Stations and the Mobile Switching Center. The stored roaming list' different from the valid roaming list' is a conventional preferred roaming list. The valid roaming list is compared to the stored roaming list in order to eliminate the scanning of the sub-PLMN that is not contained in the "valid roaming list" and the "stored roaming list"". In response, examiner would like to point out that Medica, Jr. et al teaches for example,

In the Home Only mode, the station 3 detects SIDs identifying the systems available over the air. The station compares the SIDs (valid roaming list) to that of its home system stored in the NAM (stored roaming list) location within its internal memory. If there is a match, the station 3 will select and register with the home system 20. The display will indicate the Home system registration. If there is no match, for

Art Unit: 2688

example because the customer has roamed outside the service area of that system, the station 3 will show a `No Service` indicator on the display 39.

In the PRL (stored roaming list) Only mode, the station 3 again scans for the SID of its home system. This home system scan occurs first, such that if the station detects the home system SID, the station 3 will always select and register with the home system 20. However, in this mode, if there is no match to the home system SID stored in the NAM, the station 3 will compare the SIDs (valid roaming list) of available systems 21 to the stored PRL list.

The station 3 identifies the available SID(s) that are contained in the PRL list. If the station recognizes the SID of more than one preferred system, the station selects the most preferred system, as indicated by the hierarchy of the PRL list. The station 3 will select and register with the preferred system 21 identified by the PRL list processing. The PRL list may also dictate the type of display. For example, in this situation the display may indicate a `Solid Roam` situation. Hence, the PRL list processing determines the priority of the SIDs in the list, and identifies which available system (by its SID) should be allowed to provide service (col. 7, lines 3-65,col. 9, lines 50-65, col. 11, lines 34-65, col. 15, lines 53-67, col. 17, lines 11-40, col. 18, lines 1-13, col. 19, lines 27-65, col. 20, lines 22-36).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Khawar Iqbal whose telephone number is (571) 272-7909.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Art Unit: 2688

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Khawar Iqbal

Marsha D Banks-Harold

MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600